Fw: Updates from Waste Management

Katherine Baylor to: Arlene Kabei 01/22/2011 09:17 PM

Cc: Steve Armann, Stephen Tyahla, Rich Vaille, Steve Wall, Bret Moxley

From:	Katherine Baylor/R9/USEPA/US
To:	Arlene Kabei/R9/USEPA/US@EPA
Cc:	Steve Armann/R9/USEPA/US@EPA, Stephen Tyahla/R9/USEPA/US@EPA, Rich Vaille/R9/USEPA/US@EPA, Steve Wall/R9/USEPA/US@EPA, Bret Moxley/R9/USEPA/US@EPA
History:	This message has been replied to and forwarded.

All -

This is very timely information from Waste Management, including some of the numbers (bags of trash picked up, gallons of water treated/discharged, etc.), and a clearer explanation of what's been done to date and their path forward. We are meeting w/ WM at 10 AM tomorrow, so I will try to get some clarification on some of this (the pumping log needs more clarity). Additionally, given the confusion we had yesterday on the draft AOC, we need a proper site map (.pdf) that shows the location of all the cells and the location/status of the drainage network. Ideally, I'd also like to get an electronic copy of their most recent aerial photo (the GoogleEarth image dates to 2008).

Kathy

Katherine Baylor, P.G.
U.S. Environmental Protection Agency
75 Hawthorne Street, WST-5
San Francisco, CA 94105
415-972-3351

----- Forwarded by Katherine Baylor/R9/USEPA/US on 01/22/2011 09:03 PM -----

From:	"Yamada, Stuart H" <stuart.yamada@doh.hawaii.gov>
To:	Katherine Baylor/R9/USEPA/US@EPA, Bret Moxley/R9/USEPA/US@EPA
Date:	01/22/2011 01:27 PM
Subject:	FW: Updates from Waste Management

Aloha Kathy & Bret,

As there was no indication that Waste Management had sent this to either of you, I thought it might be helpful for you to have this information.

Have a great weekend!
Stuart

From: Yamada, Stuart H
Sent: Saturday, January 22, 2011 10:58 AM
To: Ho, Kathleen; 'Edward G Bohlen/AG/StateHiUS@DOHMAIL'; Chang, Steven Y; Gill, Gary L.; Ichinotsubo, Lene K; Kurano, Matthew; Miyashiro, Thomas; Okubo, Watson T; Ruiz, Jose A; Seto, Joanna L; Tsuji, Michael; Wong, Alec Y
Subject: FW: Updates from Waste Management

FYI. I have not opened the attachments but the file names would indicate items that are primarily of interest to CWB.

From: Frey, Jesse [mailto:JFrey@wm.com]
Sent: Friday, January 21, 2011 6:03 PM
To: Yamada, Stuart H; mlanuevo@honolulu.gov
Cc: Whelan, Joseph; Lottig, Justin
Subject: Updates from Waste Management

Stuart and Manny,

Please see the attached documents per your request. The documents include an update on stormwater contingencies, a record of our pumping logs while we were pumping impounded water from the E6 area into the stormwater system, a summary of beach cleanup activity and findings, and a summary of the stormwater analytical results from the 1/13 sampling event. Please distribute as necessary.

Jesse Frey

Engineer

Waste Management of Hawaii

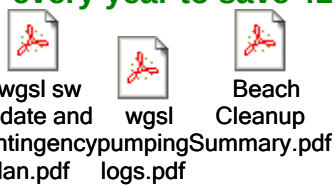
92-460 Farrington Hwy.

Kapolei, HI 96707

Ph: 808-250-0574

Fax: 808-668-1366

<<wgsl sw update and contingency plan.pdf>> <<wgsl pumping logs.pdf>> <<Beach Cleanup Summary.pdf>> <<Summary Table stormwater_1_14_2011.pdf>>



Summary Table
stormwater_1_14_2011.pdf

Waimanalo Gulch Sanitary Landfill
Stormwater Management Update and Contingency Plan
1/21/2011

Following the recent major storm events,Waste Management of Hawaii (WMH) has assessed and evaluated its stormwater control systems for effectiveness. Below is an update on ongoing measures being taken to prevent future damage to the site.

1) Ensure that we are able to control the stormwater with the 36" temporary under-drain system that originates from the upcayon **construction area**. Note that the Western Drainage Bypass Channel is designed to control the stormwater from the upcanyon watershed area, while the 36" temporary under-drain system was design to control stormwater in the expansion construction area during construction.
    - The effectiveness of 36" inlet structure for the upcanyon temporary drainage system has been restored and improved. The area immediately surrounding the inlet structure has been re-graded and armored with large boulders to prevent high sediment loading from clogging the inlet. A diversion berm immediately downstream of this diversion structure has been reinforced and re-built to further direct any stormwater into the inlet structure.
    - The area surrounding the future Cell E-8 is being excavated down to the relative elevation of the 36" inlet structure. This effort will help to create stormwater retention, dissipate stormwater velocities, and drop out sediment as it moves from the upper reaches of the construction area towards the 36" inlet structure. This effort has been ongoing since 1/18 and will be complete by 1/31.

2) Establish a functioning Western Drainage System.
    - In order to establish a functioning Western Drainage System, a functioning upcanyon diversion structure must be in place to divert the upcayon watershed stormwater into the box culvert and fiberglass piping system. Additionally, the box culvert invert that originates at the diversion structure must be connected to the 78" fiberglass piping located on the upper bench above Cell E-6. WMH's contractor continues to work double shifts on these two fronts. A functioning Western Drainage System will be in place within 2 weeks, barring any additional large rainfall events that would prevent this work from being safely completed. Note that concrete work on this Western Drainage System will be on going after this 2 week period.

3) Temporary containment berm directly south of Cell E6
    - This berm was constructed by WMH's contractor during the 1/13 storm to contain large stormwater flows originating from upcanyon and prevent a catastrophic discharge to the area surrounding Kahe Power Plant. This berm was able to safely contain a storm with a return interval of more than 100 years. This berm will remain in place until Phase 3 of the West Berm is constructed. Phase 3 of the West Berm will consist of approximately 100,000 cy of compacted rockfill overlying this area and the E6 sump area where stormwater is currently impounded. Construction of Phase 3 of the West Berm will thus prevent any future ponding of water in this area, as its top deck will reside at an elevation of 450' msl. The current waste elevation in Cell E-6 is approximately 425' msl.

4) Remove the impounded stormwater from Cell E6
    - Since pumping the impounded stormwater into the 72" fiberglass piping manhole adjacent to Cell E6 ceased on 1/16, WMH and the City and County of Honolulu (CCH) have been pumping the water out for disposal at various waste water treatment plants (wwtps) across the island. This has been a 24-hour operation since 1/16. Since 1/16, approximately 1 million gallons has been disposed at the wwtps. At this time, it is estimated that an additional 1 million gallons must be removed in order to gain access to the E6 sump riser pipe network which is located in the relative center of the impounded water. By current estimates, this will take an additional 6-7 days. This sump riser piping is still underwater as of 1/21. Once the sealed flange plates at the top of the riser network are visible, there will still be a considerable amount of impounded water surrounding the sump riser pipes. WMH and its construction contractor will need to create access to these riser pipes by constructing a fill 'bridge' out to them using rock and soil. Once we have access, we will re-establish the E6 sump pumping system that was in place and functioning prior to the large storm events. Once this system is re-established, it will run 24 hours per day until the liquid levels are drawn down to pre-storm levels, and ultimately until we are below our compliance elevation for the sump.

5) Restore the efficiency of the sedimentation basin
    - The sedimentation basin has been inundated with sediment from 3 consecutive large rainfall events. This sediment inundation has clogged the perforations on the riser pipes and the sand filtering system on the floor of the basin, causing the water still contained in the basin to attenuate very slowly towards the outfall. This sediment needs to be removed to restore the efficiency of the sedimentation pond to levels observed prior to the 3 consecutive stormwater events.
    - In order to remove the sediment, the impounded water in the pond must first be removed. While WMH was initially allowed to remove the water from the pond and apply it to the upper slopes of the landfill after conversations with EPA and HDOH officials on 1/16 and 1/17, subsequent conversations with HDOH have indicated otherwise. Restoring the efficiency of the sedimentation basin in contingent upon HDOH allowing WMH to remove the water from the pond and apply it to other areas of the landfill primarily for dust control and irrigation purposes. The other option to remove this impounded water would be to pump out the water and haul it to a wwtp for disposal. However, this would be a very time consuming and costly option.

GOODFELLOW BROS., INC. —GENERAL CONTRACTOR—

ABC-7046

Friday 1-14-11 = 2.283 MGal
Sat 1-15-11 = 1.8000 MGal
Sun 1-16-11 = N/A
4.083 Mgal

6705 Waimanalo Gulch Landfill

Total of 13.9 Million gallons

PUMP LOG

Enclosed 8" Pump

1026

Pumping commenced into HOBAS manhole on 1/13 at 7:00 pm
Pumping ceased on 1/16 at 10:00 am

P.O. BOX 970358 ■ WAIPAHU, HI 96797 ■ PHONE: (808) 676-1523 ■ FAX: (808) 676-2902 ■ WWW.GOODFELLOWBROS.COM

8" Enclosed
8" Pump

6705 Waimanalo Gulch Landfill - PUMP LOG

Friday

PUMP NO: 1026 DATE: ~~FEB~~ 1-14-11

	Start	Stop	RPM	Suction Head	Discharge Head	Suction Length	Discharge Length	Efficiency
1	7~~:00~~pm	5:00am	1500	~~20~~ 17	-20	~~40~~ 50	70	
2	500am	9:30am	1500	~~25~~ 25	-20	~~40~~ 50	70	
3	9:30am	3:30pm	Reset	Pumps	NO	PumpING		
4	330pm	500pm	1675	25	-20	50	70'	
5	700 pm	800pm	1750	10'	-8	40'	70'	
6	1000	1115	1750	10'	-8	40'	70'	
7	UNABLE TO	RESET	TO REACH	WATER				
8								
9	HRS	TDH	RPM	GPM	Gal			
10	10hrs	41	1500	2050	1,230,000			
11	4.5hrs	49	1500	1750	472,500			
12	1.5	49	1675	2400	216,000			
13	1	32	1750	2700	162,000			
14	1.25	32	1750	2700	~~202,500~~ 202,500			
15					2,283,000			
16								
17								

Sat

6705 Waimanalo Gulch Landfill - PUMP LOG

PUMP NO: _____ DATE: 1-15-11

	Start	Stop	RPM	Suction Head	Discharge Head	Suction Length	Discharge Length	Efficiency
1								
2	11:00am	11:00pm	1700	15	+5	40	100	
3		1100pm	LOST	PRIME	Sucking	AIR	DID NOT	RESET
4								
5	Pump used as Standby remaining time							
6								
7	HRS	TDH	RPM	GPM	GAL			
8	12 hrs	48'	1700	2500	1,800,000			
9								
10								
11								
12								
13								
14								
15								
16								
17								

TIMS

GOODFELLOW BROS., INC. —GENERAL CONTRACTOR—

ABC-7046

Fri 1-14-11 = 1.425 mgal

6705 Waimanalo Gulch Landfill

PUMP LOG

8" Trailer Open (Not enclosed)

1062

P.O. BOX 970358 ■ WAIPAHU, HI 96797 ■ PHONE: (808) 676-1523 ■ FAX: (808) 676-2902 ■ WWW.GOODFELLOWBROS.COM

8" Trailer open

Friday

6705 Waimanalo Gulch Landfill - PUMP LOG

PUMP NO: 1062 DATE: 1-14-11

	Start	Stop	RPM	Suction Head	Discharge Head	Suction Length	Discharge Length	Efficiency
Timo 1	12:00am	5:00am	1700	~~20~~ 25	-20	~~40~~ 50'	70'	
Andy 2	5:00am	9:30am	1700	~~20~~ 25	-20	~~40~~ 50'	70'	
3	9:30am	3:30pm	Reset Pumps		No Pumping			
4	~~3:30pm~~			~~25~~	~~20~~	~~50~~	~~70~~	
Timo 5		5	Could Not Set Pump Did Not Pump					
6								
7	HRS	TPH	RPM	GPM	Gal			
1 8	5hrs	49	1700	2500	750,000			
2 9	4.5	49	1700	2500	675,000			
10					1,425,000			
11								
12								
13								
14								
15								
16								
17								

8" Trailer open

6705 Waimanalo Gulch Landfill - PUMP LOG

Saturday

PUMP NO: 1662 DATE: 1-15-10

	Start	Stop	RPM	Suction Head	Discharge Head	Suction Length	Discharge Length	Efficiency
1	?							
2	DID NOT PUMP AT ALL 5pm TO 500 Am							
3								
4	~~10:30am~~	5:00pm						
5	~~10:00am~~	~~3:00pm~~	~~1200~~	~~30~~	~~5~~	~~60~~	~~20~~	
6								
7		Pump used As Stand by remaining time						
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								

Time

Fri - 1-14-11 = 2,044 Mgal
Sat - 1-15-11 = 4,833 Mgal
Sun - 1-16-11 = 1,500 Mgal
8,377 Mgal

6705 Waimanalo Gulch Landfill

PUMP LOG

12" Skid Mounted Pump

1111

12" Skid Mounted

Friday

6705 Waimanalo Gulch Landfill - PUMP LOG

PUMP NO: 1111 DATE: 1-14-11

	Start	Stop	RPM	Suction Head	Discharge Head	Suction Length	Discharge Length	Efficiency
1	9:30am	3:15 pm	Arrive @ jobsite + Set up.					
2	3:15pm	330 pm	2200	10	-5	50'	40'	
3	330 pm	800 pm	2000	16	-5	50	40'	
4	1000 pm	12:00am	2000	~~20~~	-5	70'	40'	
5								
6		TDH	Equivelent RPM	GPM	GAL			
~~1~~	~~.5 hrs~~	~~30'+/-~~						
2	.25 hrs	30 +/-	1100	5300	79,500			
3	4.5 hrs	35 +/-	1050	5100	~~1,377~~ 1,377,000			
4	2 hrs	42 +/-	1050	4900	588,000			
11					2,044,500			
12								
13								
14								
15								
16								
17								

Timer kicking in

12" Skid Mounted

6705 Waimanalo Gulch Landfill - PUMP LOG

Sat

PUMP NO: 1111 DATE: ~~Fri~~ 1-15-11

		Start	Stop	RPM	Suction Head	Discharge Head	Suction Length	Discharge Length	Efficiency
	1	~~12:00am~~	~~2:30pm~~						
Reset Added 1 gudo	2	12:00am	9:00am	2000	20	-5	70	40	
	3	11:00am	2:30pm	2000	25	-5	80	40	
	4	4:00pm	5:00 pm	2000	35	5	130	80	
1 Time	5	Pump was Running when I started at 5pm it ran all night							
	6	At 2000 RPM							
	7	500pm	12:00am	2000	35	5	130	80	
	8		TDH	Equip RPM	GPM	GAL			
2	9	9hrs	42'	1050	4900	2,646,000			
3	10	3.5 hrs	49'	1050	4700	987,000			
4	11	1 hr	77'	1050	2500	150,000			
7	12	7hr	77'	1050	2500	1,050,000			
	13					4,833,000	Total		
	14								
	15								
	16								
	17								

6705 Waimanalo Gulch Landfill - PUMP LOG

PUMP NO: 1117 DATE: Sun 1-16-17

	Start	Stop	RPM	Suction Head	Discharge Head	Suction Length	Discharge Length	Efficiency
1								
2	12:00am	10:00am	2000	35	5	130	80	
3								
4		TDH	RPM	GPM				
5	10 hrs	77'	1090	2500	1,500,000			
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								

WGSL Storm Cleanup

Date	Location	debris/typical ocean trash (No. of 40 gallon bags)	medical waste
14-Jan	WGSL Storm Drain Outlet	20	1 gallon bucket full
15-Jan	WGSL Storm Drain Outlet	10	2 syringes, 1 vial
16-Jan	White Plains Beach	5	1 syringe
16-Jan	WGSL Storm Drain Outlet	0	1 syringe
17-Jan	White Plains Beach	2	2 syringes, 1 vial
17-Jan	White Plains Beach/Nimitz Beach	1	2 syringes
18-Jan	Pokai Bay	0	0
18-Jan	White Plains Beach/Nimitz Beach	4	0
18-Jan	White Plains Beach/Nimitz Beach	10	2 syringes
19-Jan	White Plains Beach/Nimitz Beach	0	1 syringe
19-Jan	Pokai Bay	0	0
19-Jan	Kahe Beach/Tracks/WGSL Discharge/HECO Discharge	0	1 syringe, 1 vial
20-Jan	Kahe Beach/Tracks/WGSL Discharge/HECO Discharge	0	0
20-Jan	Ko'Olina (Paradise Cove)	0	1 syringe
20-Jan	White Plains Beach/Nimitz Beach	0	0
21-Jan	White Plains Beach/Nimitz Beach	0	0
21-Jan	Kahe Beach/Tracks/WGSL Discharge/HECO Discharge	0	0

Waimanalo Gulch Sanitary Landfill Storm water Monitoring

Five Monitoring Stations , 13 January 2011 Discharge Event

Laboratory **Final** Data Summary Table - FOR INTERNAL USE ONLY

Method	Analyte	Unit	Screening Criteria	Benchmark Level	UPCANYON	CULVERT	OCEAN OUTLET	OCEAN EAST	OCEAN WEST
1664A	HEM (Oil and Grease)	mg/L	15	15	3.7 J	5.1	4.5 J	4 J	3.5 J
40CFR136A 625	Alpha-Terpineol	mg/L	0.016	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	Benzoic acid	mg/L	0.071	NA	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	p-Cresol	mg/L	0.014	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	Pentchlorophenol	mg/L	0.02	NA	< 0.019 *	< 0.021 *	< 0.023 *	< 0.021 *	< 0.02 *
	Phenol	mg/L	0.015	1.0	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
EPA 200.7 Rev 4.4	Arsenic	mg/L	0.36	0.16854	< 0.015	< 0.015	< 0.015	< 0.015	0.0044 J
	Cadmium	mg/L	0.003	0.0159	< 0.00045 *	< 0.00045 *	< 0.00045 *	< 0.00045 *	< 0.00045 *
	Calcium	mg/L	NA	NA	11	24	190	370	370
	Iron	mg/L	1.0	1.0	**41**	**8.6**	**14**	**20**	**18**
	Lead	mg/L	0.029	0.0816	< 0.009	0.0034 J	0.0061 J	0.0057 J	0.0058 J
	Magnesium	mg/L	NA	0.0636	11	13	510	1,100	1,100
	Potassium	mg/L	NA	NA	6.1	7	200	480	470
	Selenium	mg/L	0.02	0.2385	< 0.015	0.0078 J	< 0.015	< 0.015	0.0064 J
	Silver	mg/L	0.001	0.0318	< 0.00093 *	< 0.00093 *	< 0.00093 *	< 0.00093 *	< 0.00093 *
	Sodium	mg/L	NA	NA	51 B	73 B	5,000 B	11,000 B	10,000 B
	Zinc	mg/L	0.022	0.117	**0.058**	0.017 J	**0.037**	**0.049**	**0.047**
EPA 245.1	Mercury	mg/L	0.0024	0.0024	< 0.0002	< 0.0002	< 0.0002	0.000033 J	< 0.0002
EPA 7196	Hexavalent Chromium	µg/L	16	NA	< 10	< 10	< 10	< 10	< 10
EPA 365.1	Phosphorus, Total	mg/L	NA	2.0	0.58 B	0.38 B	0.33 B	0.34 B	0.22 B
MCAWW 350.1	Ammonia	mg/L	4.9	19	0.17	0.11	0.055 J	0.074 J	0.053 J
MCAWW 353.2	Nitrate-Nitrite as Nitroge	mg/L	NA	0.68	3.2	2.9	1.9	0.17	0.13
EPA Total Nitrogen	Nitrogen, Total	mg/L	NA	NA	4.1	4.8	2.8	0.41	0.77
EPA 405.1	BOD (5-Day)	mg/L	NA	30	< 2	8.91	3.48	< 2	< 2
MCAWW 410.4	Chemical Oxygen Deman	mg/L	NA	120	29	45	160	410	450
SM 2540D	Total Suspended Solids	mg/L	100	100	**190**	57	**320**	**340**	**320**
MCAWW 300.0A	Bromide	mg/L	NA	NA	0.16 J	0.73	32	67	67
	Chloride	mg/L	NA	860	61	95	9,600	19,000	19,000
	Sulfate	mg/L	NA	NA	27 B	45 B	1,300 B	2,800 B	2,700 B
SM 2320B	Bicarbonate Alkalinity	mg/L	NA	NA	31	77	110	120	120
	Carbonate Alkalinity	mg/L	NA	NA	< 5	< 5	< 5	< 5	< 5
	Total Alkalinity	mg/L	NA	NA	31	77	110	120	120
Bac-T	Total Coliform	MPN/100 mL			500	> 1,600	> 1,600	> 1,600	170
	E. coli	MPN/100 mL			74	< 2.0	3.6	3.6	< 2.0
Field Method	pH	SU	5.5-8.0	6.0-9.0	**8.46**	**8.14**	**8.13**	**8.06**	7.92

Note:

Bold	exceed screening criteria
<	not detected above the reporting limits
>	greater than
*	not detected above the method detection limits
µg/L	micrograms per liter
mg/L	milligrams per liter
B	compound was found in the blanks (0.221 J mg/L for Sodium, 0.0115 J mg/L for Total Phosphorus; and 0.245 J mg/L for Sulfate)
BOD	biochemical oxygen demand
HEM	n-hexane extractable material
NA	no limitation at this time
J	estimated result is less than the reporting limit but greater than or equal to the method detection limit
SU	standard unit